

## Chronic Disease Indicators: Indicator Definition



### Mortality with end-stage renal disease

Category:	Other Diseases and Risk Factors
Demographic Group:	All resident persons.
Numerator:	Deaths with International Classification of Diseases (ICD)-10 codes N03–N05, N13.0–N13.3, N17–N19, N25–N26, N28.0, N28.8 (ICD-9 codes 581–588, 591, 593.8, 593.9) as the underlying or contributing cause of death among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year.
Measures of Frequency:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, distribution 1*) — with 95% confidence interval.
Time Period of Case Definition:	Calendar year.
Background:	In 2001, >96,000 incident cases of end-stage renal disease (ESRD) were reported. Diabetes is the leading cause (44%) of ESRD, and hypertension is the second leading cause (26%).
Significance :	The complications of diabetes and hypertension, including ESRD, can be prevented by improved patient education and self-management, and the provision of adequate and timely medical care, including blood glucose and blood pressure control.
Limitations of Indicator:	Because ESRD develops over a long period, years might pass before changes in behavior or clinical practice affect population incidence. Approximately one third of diabetes cases are undiagnosed.
Data Resources:	Death certificate data from vital statistics agencies (numerator) and population estimates from the U.S. Bureau of the Census or suitable alternative (denominator).
Limitations of Data Resources:	Causes of death and other variables listed on the death certificate might be inaccurate. The number of contributing causes of death listed on the death certificate might vary by person completing the death certificate and geographic region.
Healthy People 2010 Objectives:	No objective.

\* See Klein RJ, Schoenborn CA. Age adjustment using the 2000 projected U.S. population. Hyattsville, MD: US Department of Health and Human Services, CDC, National Center for Health Statistics, 2001. Healthy people 2010 statistical notes, no. 20. <http://www.cdc.gov/nchs/data/statnt/statnt20.pdf>